UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,966	01/28/2002	Krag C. Smith	269-101P-CIP	6702

7590 06/21/2005

WILLIAM L. KLIMA
2046-C JEFFERSON DAVIS HIGHWAY
STAFFORD, VA 22554

EXAMINER	
FISCHER, JUSTIN R	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/055,966	SMITH ET AL.	
	Examiner	Art Unit	
	Justin R. Fischer	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4 and 6-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4 and 6-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 4, 6, 8, 10, 13-19, 21-24, 27, 28, 30-36, and 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sievi-Korte (US 2002/0066507, of record). Sievi-Korte is applied in the same manner as set forth in the Non-Final Rejection mailed on December 13, 2004 (Paragraph 5).

Sievi-Korte describes a vehicle tire construction in which at least a part of the tire is formed of a material that changes color with temperature, wherein said material may occur as a suitable pattern, such as the manufacturer's logo, letters, figures, or stripes, on the tire surface. The reference goes on to describe a preferred embodiment in which at least one part of the sidewall, at least one part of the tread wing, or both of said parts are formed of the above noted color material (Page 1, Paragraphs 10 and 11). While the reference fails to expressly suggest that the colored pattern is existent over at least 25% of the tire outer surface, one of ordinary skill in the art at the time of the invention would have found such a design obvious in view of the preferred embodiment noted above (one would have recognized the combination of sidewall and tread wing area to constitute at least 25% of tire outer surface) and furthermore, in view of the general teaching of Sievi-Korte that "it is obvious to those skilled in the art that the position of this material can be freely selected" (Page 1, Paragraph 10). Also, the degree to which

the colored material covers the tire outer surface represents an aesthetic characteristic that does not contribute to the mechanical function of the tire. As such, one of ordinary skill in the art at the time of the invention would have found it obvious to include the colored material of Sievi-Korte over a region that is equal to or greater than 25% of the tire outer surface. Lastly, it is evident that a change in color from colorless to a certain color provides enhanced visibility. Also, a change in color in the evening due to a reduced temperature provides enhanced visibility (Paragraph 8).

It is initially noted that the claims as currently drafted do not positively require a non-repeating colored pattern, but rather only require a tire "configured" to display such a pattern (all tires can viewed as being "configured" to display a non-repeating colored pattern).

Regarding claim 4, the colored material can vary from one color to another or from colorless to a specific color (Page 1, Paragraph 8). One would recognize this description as describing materials that are non-black and non-white.

With respect to claims 6, 10, 13-19, as noted above, the colored material can be in the form of a logo, lettering, stripes, etc.. These patterns are being viewed as a single, non-black pattern. It is particularly noted that one of ordinary skill in the art at the time of the invention would have readily appreciated a design in which the colored material is raised since such an arrangement is extensively used in the manufacture of tires incorporating colored indicia or designs in the sidewall region.

Regarding claim 8, the tread composition would be expected to contain carbon black as is extremely well known and conventional in the tire industry.

With respect to claims 21, 23, and 42, the colored material changes color in response to an increase and/or decrease in temperature and thus necessarily changes color with time.

As to claims 22 and 24, the pigments of Sievi-Korte change color with time/wear and temperature and are reversible.

Regarding claims 27 and 28, the colored pattern does not form the entire sidewall, such that at least a portion of the sidewall would be formed of a carbon black containing composition (same as tread). In this same regard, the colored portion that is existent in the sidewall region is a different color that the tread.

With respect to claims 30-34, the tire construction defined by Sievi-Korte is used as a vehicle tire and thus is necessarily mounted on a rim (defines a wheel assembly). With specific regard to claims 31-34, the claims do not further define the structure of the claimed tire article or wheel assembly- the claims are directed to the method of selecting and matching the color of the tire rubber to an additional tire component. It is emphasized that the selection of a color represents an aesthetic property that does not significantly contribute to the mechanical function of the tire.

Regarding claims 35 and 36, the tire construction of Sievi-Korte provides a substantially uniform colored surface, wherein the color is uniform throughout its depth.

With respect to claim 38, the patterned color surface of Sievi-Korte is existent over the circumferential and radial axis of the tire.

Regarding claims 39-41, the colored pattern of Sievi-Korte includes a thermo-chrome pigment (additive). It is further noted that the language of claim 40 requires that

the coloring agent "is capable of forming a non-black and non-white color that is fully developed throughout the depth of the tire composition". It is clear that the pigment of Sievi-Korte is capable of being included in each of the tire components if such a limitation is intended.

3. Claims 1, 2, 4, 6-8, 10-21, 22, 24, 26, 28, 30-36, 38-41, 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogal (DE 19613801, of record). Rogal is applied in the same manner as set forth in the Non-Final Rejection mailed on December 13, 2004 (Paragraph 6).

Rogal is directed to a pneumatic tire construction in which the side surface (sidewalls) and/or the tread are colored with at least one pigment. While the reference fails to expressly define the extent of the colored region as equal to or greater than 25% of the tire outer surface, one of ordinary skill in the art at the time of the invention would have found such an arrangement obvious in view of the general description of Rogal noted above. In particular, the tire outer surface is formed of the sidewalls and the tread and Rogal states that both the tread and sidewalls or simply one of the components can include a pigment to define colored regions. In view of this language, one of ordinary skill in the art at the time of the invention would have expected and readily appreciated a tire construction in which at least 25% of the tire outer surface is formed of a colored pattern. Also, the embodiments in which only the tread and the sidewall are colored would be expected to result in a construction having more than 25% of the tire outer surface as a colored pattern. Lastly, the tire of Rogal is designed to provide enhanced visibility (e.g. use of luminescent pigments).

It is initially noted that the claims as currently drafted do not positively require a non-repeating colored pattern, but rather only require a tire "configured" to display such a pattern (all tires can viewed as being "configured" to display a non-repeating colored pattern).

As to claims 4 and 6, Rogal suggests a wide variety of pigments, including alkali blue. In the embodiments where the tread or sidewall is colored, this design is seen to constitute a "single, non-black colored surface".

With respect to claim 7, the assembly of Rogal can include different color strips.

Regarding claim 8, one of ordinary skill in the art at the time of the invention would have expected the sidewall and tread to include carbon black when they do not form a colored pattern.

With respect to claims 10 and 11, the colored layer of Rogal is applied as a motif or a pattern- this is seen to constitute "art". Also, certain patterns (art) are only displayed when the vehicle reaches a certain speed (different colors are suggested).

With respect to claims 12-19, the inclusion of a wide variety of indicia or designs would have been well within the purview of one of ordinary skill in the art at the time of the invention. These elements are extensively provided on tire sidewalls for a variety of reasons, including aesthetic purposes and information purposes. It is additionally noted that raised indicia or designs represent a common and conventional means of including these elements into tire sidewalls.

Regarding claims 20 and 21, the colored regions can be designed such that they are a single color (constant over time) or they can be formed with pigments that change color over time (e.g. fluorescent pigments).

As to claims 22 and 24, Rogal describes the inclusion of optical pigments that change color over time and with increasing speed. This is seen to constitute a change in color with respect to wear since an increase in wear is observed over time and with increasing vehicle speed.

With respect to claim 26, the inclusion of fluorescent or phosphorescent pigments results in a colored pattern or region that lights or brightens the tire under certain conditions.

Regarding claim 28, the sidewall can be colored while the tread remains black and vice versa.

With respect to claims 30-34, the tire construction defined by Rogal is used in as a vehicle tire and thus is necessarily mounted on a rim (defines a wheel assembly). With specific regard to claims 31-34, the claims do not further define the structure of the claimed tire article or wheel assembly- the claims are directed to the method of selecting and matching the color of the tire rubber to an additional tire component. It is emphasized that the selection of a color represents an aesthetic property that does not significantly contribute to the mechanical function of the tire.

Regarding claims 35 and 36, the colored region of Rogal is substantially uniform and constant through the depth of the region.

With respect to claim 38, the colored region of Rogal is existent over the circumferential and radial direction of the tire.

Regarding claims 39-41, Rogal described the colored region/pattern as including at least one pigment. It is further noted that the language of claim 40 requires that the coloring agent "is capable of forming a non-black and non-white color that is fully developed throughout the depth of the tire composition". It is clear that the pigment of Rogal is capable of being included in each of the tire components if such a limitation is intended.

With respect to claims 43-45, the colored pattern of Rogal changes as a function of the vehicle speed and thus necessarily changes color as a function of pressure (increase in vehicle speed accompanied by increase in pressure).

4. Claims 1, 2, 4, 6-9, 21, 22, 25, 28-35, 37, 39, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creasey (US 3,814,160, of record). Creasey is applied in the same manner as set forth in the Non-Final Rejection mailed on December 13, 2004 (Paragraph 7).

As best depicted in Figure 1, Creasey is directed to a tire construction in which the outer-tread layer or the under-tread layer can be colored, such that the reference is directed to an embodiment in which the outer tread surface can be colored (e.g. yellow) (Column 2, Lines 1-20). While the reference fails to expressly define the colored region occupying at least 25% of the tire outer surface, one of ordinary skill in the art at the time of the invention would have found such a range obvious in view of the fact that the tire outer surface is defined by the tread and the sidewalls- in one of the embodiments

noted above, the entire tread surface is formed of a colored rubber composition (e.g. yellow). Being that the tread surface area is generally greater that the sidewall surface area, one of ordinary skill in the art at the time of the invention would have expected this embodiment to have more than 25% of the tire outer surface covered with the above noted colored region/pattern (stripe). It is further noted that the specific area of the tread and sidewall is a function of the type of tire. It is emphasized that the degree to which the tire outer surface is formed of a colored pattern represents an aesthetic feature that does not significantly contribute to the mechanical function of the tire. Lastly, the colored material of Creasey is described as being a tread wear indicating assembly.

It is initially noted that the claims as currently drafted do not positively require a non-repeating colored pattern, but rather only require a tire "configured" to display such a pattern (all tires can viewed as being "configured" to display a non-repeating colored pattern).

Regarding claim 6, during normal running and wear, the outer surface is a single colored surface.

With respect to claims 7 and 9, during uneven wear, the tire surface is formed of multiple colors. In particular, the color of the outer tread surface is exposed and the color of the under tread layer is exposed in only the regions where tread wear (uneven) is experienced. Furthermore, Creasey suggests that the colored outer tire surface can be white. Also, a common white sidewall could be included in the tire design of

Creasey- as noted above, the particular selection of colored regions does not appear to significantly impact the structure and thus function of the tire.

Regarding claim 8, the tire sidewall of Creasey is formed of the conventional black tire rubber composition.

As to claims 21, 22, and 25, the colored surface of Creasey changes with time (the under tread layer becomes exposed as a result of wear). In this instance, the change of color is not reversible.

With respect to claim 28, the outer sidewall surface is black while the outer tread surface is lightly colored as described above.

As to claim 29, the outer tread surface of Creasey will be mutli-colored as a result of uneven tread wear.

Regarding claims 30-34, the tire construction defined by Creasey is used in an automobile tire and thus is necessarily mounted on a rim (defines a wheel assembly). With specific regard to claims 31-34, the claims do not further define the structure of the claimed tire article or wheel assembly- the claims are directed to the method of selecting and matching the color of the tire rubber to an additional tire component.

With respect to claim 35, the outer tread surface of Creasey has a substantially uniform colored surface.

Regarding claim 37, the tire surface of Creasy can be viewed as a non-uniform colored surface since during tread wear the colored region will not be continuous over the extent of the tread surface.

As to claim 39, Creasey describes the inclusion of a suitable pigment to affect the desired color (Column 2, Lines 1-20).

Regarding claim 43, the color of the outer tread surface of Creasey is affected by an increase in pressure- the higher the pressure, the more the tread will wear and the quicker the color of the under-tread layer will be exposed.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki (US 6,235,376, newly cited). As best depicted in Figure 1, Miyazaki is directed to a pneumatic tire construction in which a design or image is arranged on the tire sidewall, wherein said image can be a photograph (Abstract). In this instance, Miyazaki simply states that the above noted design or image is formed "at the side portion of the tire". One of ordinary skill in the art at the time of the invention would have found it obvious to cover at least 25% of the tire outer surface with said design or image depending on the desired aesthetic effect. It is emphasized that the degree to which the colored material covers the tire outer surface represents an aesthetic characteristic that does not contribute to the mechanical function of the tire. Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to form the tire of Miyazaki, with respect the design or image, in accordance to the limitations of the claimed invention.

Response to Arguments

6. Applicant's arguments filed May 26, 2005 have been fully considered but they are not persuasive.

Regarding Sievi-Korte, applicant contends that the reference does not disclose a colored pattern, let alone a non-repeating colored pattern, on at least twenty-five percent of the outer surface of the tire. As noted above, the reference discloses the placement of a pattern on at least one part of the sidewall, at least one part of the tread wing are, or on both of these. The language "at least" suggests that the pattern can be provided on a plurality of parts of either or both of the above noted regions. Furthermore, the reference specifically states that the position of the pattern can be freely selected. As such, one of ordinary skill in the art at the time of the invention would have found it obvious to form the tire of Sievi-Korte with a pattern on at least twenty-five percent of the tire outer surface. Also, while the examples of Sievi-Korte include small sized surface areas, one of ordinary skill in the art at the time of the invention would have been able to appropriately select the size of the pattern depending on the desired aesthetic effect- it is emphasized that the degree to which the colored material covers the tire outer surface represents an aesthetic characteristic that does not contribute to the mechanical function of the tire.

With respect to Rogal, applicant argues that the reference fails to disclose a non-repeating colored pattern on at least twenty-five percent of the outer surface. As noted above, Rogal discloses a tire in which a colored layer containing at least one colored pigment is applied to the side surfaces and/or tread. In this instance, a colored stripe is seen to constitute a non-repeating colored pattern- thus, if either the side surface or tread is provided with a colored layer, the reference would be directed to a tire satisfying the claimed limitations. As to the specific coverage area, the degree to which the

colored material covers the tire outer surface represents an aesthetic characteristic that does not contribute to the mechanical function of the tire.

Regarding Creasy, applicant contends that the outside surface is completely black. The examiner respectfully disagrees. Creasy specifically states, "if desired, however, the outer surface can be of a light color and the tread wear indicator portion of a dark color" (Column 2, Lines 15-20). Thus, the outer tread surface of Creasy can be formed as a single, colored stripe, which is seen to constitute a non-repeating colored pattern that covers at least 25% of the tire outer surface (tread area represents at least 25% of tire outer surface).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Justin Fischer

June 15, 2005

JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300